

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

- 1                   1. (Currently amended) A micro electromechanical systems (MEMS) device  
2 comprising:  
3                   a scanning probe microscopy (SPM) component; and  
4                   one or more fluidic channels formed in the SPM component;  
5                   one or more control valves to control a flow of fluid in the one or more fluidic  
6                   channels; and  
7                   one or more movable members formed in the SPM component, at least one fluidic  
8                   channel being formed in each movable member, wherein fluid flow through the at least one  
9                   fluidic channel produces movement in the movable member.
- 1                   2. (Currently amended) The MEMS device of claim 1 wherein the SPM  
2 component is usedA method for nanomachining using the MEMS device of claim 1.
- 1                   3. (Previously presented) A micro electromechanical systems (MEMS)  
2 device comprising:  
3                   a scanning probe microscopy (SPM) component;  
4                   at least one fluidic channel formed in the SPM component; and  
5                   a venturi tube formed along a portion of the fluidic channel,  
6                   wherein a vacuum can be developed by a flow of a gas or fluid through the  
7 venturi tube.
- 1                   4. (Currently amended) A micro electromechanical systems (MEMS) device  
2 comprising:  
3                   a scanning probe microscopy (SPM) component;  
4                   one or more movable members formed in the SPM component;

5                   a fluidic channel formed in a first movable member the SPM component, the  
6   fluidic channel configured to deliver fluid to a tip of the SPM component; and  
7                   one or more control valves formed in the SPM component to control a flow of  
8   fluid in the fluidic channel; and  
9                   an amount of an isotope disposed along the fluidic channel,  
10                  wherein the particles emitted by the isotope can be delivered by a fluid flowing in  
11   the fluidic channel to the tip to affect the charge distribution in a region about the tip.

1               5. (Currently amended) The MEMS device of claim 4 wherein the particles  
2   delivered to the tip can be used to perform A method for performing nanomachining on a  
3   workpiece using the device of claim 4 wherein the particles are delivered to the tip.

6 - 7. (Canceled)

1               8. (Previously presented) The MEMS device as recited in claim 4 wherein  
2   the isotope is Americium 241.

1               9. (Original) The MEMS device as recited in claim 4 wherein the amount of  
2   isotope is disposed in a single isotopic region on the SPM device, wherein the single isotopic  
3   region contains 1 microcurie or less of radioactivity.

10 - 25. (Canceled)

1               26. (Currently amended) Any application, measurement or operation in which  
2   the device of 10 acts A method of performing a nanomachining operation comprising  
3   manipulating a device as recited in claim 4 relative to a surface, including constraining motion of  
4   the device in a specific or constrained region.

1               27. (Currently amended) Any application, measurement or operation A  
2   method as in 26 in which the application nanomachining operation uses chemical or biological  
3   chips or devices in which material therefore for the operation, application or measurement is  
4   placed in wells in a regular arrangement on a plane or surface(s).

1                   28. (Currently amended) Any application, measurement or operation A  
2   method as in 26-27 in which the target-material is DNA which has been marked optically,  
3   electrically or chemically so as to interact with optical, electrical or chemical detectors or  
4   emitters associated with or integrated in the device.

29. - 37. (Canceled)

1                   38. (Currently amended) The MEMS device of claim 37-1 further comprising  
2   a cantilever formed in the SPM component and operatively coupled to the moveable members,  
3   wherein movement in the movable members serves to move the cantilever.

39 - 40. (Canceled)

1                   41. (Currently amended) The MEMS device of claim [40] 4 wherein the fluid  
2   flow comprises one of moving fluid from the fluidic channel formed in the first moveable  
3   member to create at least a partial vacuum thereby effecting movement of the first moveable  
4   member and moving fluid into the fluidic channel formed in the first moveable member wherein  
5   a force of the fluid effects movement of the first moveable member.

1                   42. (Currently amended) The MEMS device of claim [40] 4 wherein fluid  
2   flow through the at least one fluidic channel produces movement in the first movable member.

1                   43. (Previously presented) The MEMS device of claim 42 further comprising  
2   a cantilever formed in the SPM component and operatively coupled to the moveable members,  
3   wherein a fluidic channel is formed in each moveable member, wherein movement in the  
4   movable members serves to move the cantilever.

1                   44. (Currently amended) The MEMS device as recited in claim [40] 4  
2   wherein the moveable members act as passive elements.

1           45. (Currently amended) The MEMS device as recited in claim [40] 4  
2 wherein the moveable members produce electrical signals during movement, wherein the  
3 electrical signals serve to control subsequent movements.

1           46. (Previously presented) The MEMS device as recited in claim 45 wherein  
2 the electrical signals serve to obtain one of a predetermined motion of a first moveable member,  
3 a predetermined displacement of the first moveable member, a zero displacement position of the  
4 first moveable member.

1           47. (Previously presented) The MEMS device as recited in claim 4 further  
2 comprising a circuit for monitoring changes in charge accumulation in the fluidic channel as the  
3 isotope is moved by fluid flow.

1           48. (Previously presented) A method for nanoelectric discharge machining  
2 using the MEMS device as recited in claim 4, the method comprising imaging a surface to be  
3 machined and measuring surface features of the surface to be machined, the imaging and  
4 measuring being performed using a scanning probe microscopy technique.

49 - 58.       (Canceled)

1           59. (New) A micro electromechanical systems (MEMS) device comprising:  
2           a scanning probe microscopy (SPM) component;  
3           a fluidic channel formed in the SPM component, the fluidic channel configured to  
4 deliver fluid to a tip of the SPM component;  
5           an amount of an isotope disposed along the fluidic channel, wherein the particles  
6 emitted by the isotope can be delivered by a fluid flowing in the fluidic channel to the tip to  
7 affect the charge distribution in a region about the tip; and  
8           a circuit for monitoring changes in charge accumulation in the fluidic channel as  
9 the isotope is moved by a flow of fluid.